

ABSTRACT

5       A cylinder inflow exhaust gas amount calculation  
system of an internal combustion engine provided with an  
intake passage, an exhaust passage, an exhaust gas  
recirculation passage connecting the intake passage and  
exhaust passage, and an exhaust gas flow rate control  
valve arranged in the exhaust gas recirculation passage  
for controlling the flow rate of the exhaust gas flowing  
10       in the exhaust gas recirculation passage, and the system  
calculating an amount of cylinder inflow exhaust gas  
defined as an amount of exhaust gas flowing into a  
cylinder, utilizing an amount of passage exhaust gas  
defined as an amount of exhaust gas passing through the  
15       exhaust gas flow rate control valve, wherein an amount of  
cylinder inflow exhaust gas is calculated considering the  
dead time corresponding to the time taken until the  
exhaust gas passing through the exhaust gas flow rate  
control valve reaches the cylinder and a tracking lag of  
20       a change in the amount of cylinder inflow exhaust gas  
with respect to a change in the amount of passage exhaust  
gas.